(xi) Tele-communication system has been established in all underground mines.

(xii) A comprehensive action plan is under implementation to reduce accidents in opencast mines and at surface of mines.

(xiii) To reduce accidents in opencast and surface by contractual operations a code of practice on the safety aspect of work persons and machinery is being implemented in subsidiaries.

(xiv) Thrust on training and re-training of workmen including contractor's worker and supervisors.

(xv) Annual safety action plan is prepared and time bound action programme for different safety related activities drawn up.

(xvi) Risk assessment and risk management plan of mines are being prepared as per recommendations of 9th Conference on safety in coalmines.

(xvii) Accident investigation enquiries into all accidents are conducted by ISO and the recommendations to avoid recurrence are circulated at all levels and implemented.

Fire fighting system in coal mines and factories

†3405. SHRI P. K. MAHESHWARI :

SHRIMATI SAVITA SHARDA :

Will the Minister of COAL be pleased to state :

(a) Whether Government have any plan to improve fire fighting system of coal mines and factories;

(b) if so, details of various coal mines; and

(c) reasons for the recurrence of fire incidence in coal mines and remedial steps taken by Government in this regard?

THE MINISTER OF COAL (SHRI KARIYA MUNDA) : (a) and (b) Measures are taken for preventing fires and fire fighting in coal mines as laid down in the Mines Act, 1952 and the rules and regulations made there under.

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†Original notice of the question was received in Hindi.

The following measures are being taken in the coal mines of Coal India Limited for fire fighting :

In opencast mines :

(i) Provision of automatic fire detection and suppression systems/fire-extinguishers in Heavy-Earth-Moving-Machinery (HEMM).

(ii) Provision of fire tenders.

(iii) Establishment of fire-fighting organisation in mines.

(iv) Imparting training on fire-fighting.

(v) Augmentation of fire-fighting system in coal handing plants in large open cast mines.

In underground mines :

(i) Adoption of schemes for provision and maintenance of fire-fighting arrangements for

- prevention, detection, dealing and control of heating/fire.
- examination of protective measures taken to control or isolate a fire/heating and
- for ensuring safety of persons engaged in fire-fighting operations.

(ii) Laying water ranges along belt conveyor routes with hydrants at convenient locations.

(iii) Water-spraying.

(iv) Maintaining fire-extinguishers at specified locations like entrance to mine, landing, pit bottom, engine room, drive head of conveyor, electrical gear, filling station, battery charging station, workshop etc.

(v) Maintaining fire-fighting plans.

(vi) Examination of fire-fighting equipment and taking corrective action.

(c) Coal has an inherent property of spontaneous heating. On exposure to air, oxidation of the carbonaneceous material commences. This reaction liberates heat. Unlesss this heat is dissipated at a rate grater than the rate of heat generation, there is rise in temperature. The rise in temperature increases the rate of oxidation and this may ultimately lead to and outbreak of fire.

Important measure taken to prevent, out-break of fire are listed below:—

In underground mines :

(i) Extraction of coal by forming panels of proper size which can be extracted within the incubation period.

(ii) Constructing preparatory stoppings to enable quick isolation of the panel in case of out-break of fire.

(iii) Monitoring environmental conditions in extraction areas, sealed off areas, old workings, return airways for early detection of fires.

(iv) Blanketing of surface areas over extracted areas.

(v) Inspection of workings, isolation/fire-stoppings, including old workings on idle days.

(vi) Environmental tele-monitoring systems are being installed in a phased manner in some fiery and highly gassy underground mines. Already thirteen such systems are in operation and two more such systems are under procurement.

In opencast mines :

(i) Blanketing of exposed benches in coal seams prone to spontaneous heating and in coal stocks.

(ii) Provision for water-spraying.

(iii) Regular inspection of coal dumps, OB dumps, stocks etc.

Commissioning of Stealth Frigate

3406. SHRI RAMA MUNI REDDY SIRIGIREDDY : Will the Minister of DEFENCE be pleased to state :

(a) whether the first of the three multi-purpose stealth frigate built in Russia for the Indian Navy is going to be commissioned in May 2003 ; and

(b) if so, the details thereof ?